National Institute of Environmental Health Sciences

Automated monitoring of clusters of falls associated with severe winter weather using the BioSense system

Author(s): Dey AN, Hicks P, Benoit S, Tokars JI
Year: 2010
Journal: Injury Prevention : Journal of The International Society for Child and Adolescent Injury Prevention. 16 (6): 403-407

Abstract:

OBJECTIVES: To identify and characterise clusters of emergency department (ED) visits for fall injuries during the 2007-2008 winter season. METHODS: Hospital ED chief complaints and diagnoses from hospitals reporting to the Centers for Disease Control and Prevention BioSense system were analysed. The authors performed descriptive analyses, used time series charts on data aggregated by metropolitan statistical areas (MSAs), and used SaTScan to find spatial-temporal clusters of visits from falls. RESULTS: In 2007-2008, 17 clusters of falls in 13 MSAs were found; the median number of excess ED visits for falls was 71 per day. SaTScan identified 11 clusters of falls, of which seven corresponded to MSA clusters found by time series and five included more than one state/district. Most clusters coincided with known periods of snowfall or freezing rain. CONCLUSION: The results show the role that a national automated system can play in tracking widespread injuries. Such a system could be harnessed to assist with prevention strategies.

Source: http://dx.doi.org/10.1136/ip.2009.025841

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Health Professional

Exposure :

weather or climate related pathway by which climate change affects health

Precipitation

Geographic Feature:

resource focuses on specific type of geography

Urban

Geographic Location: ☑

resource focuses on specific location

United States

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Injury

Intervention: ☑

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Medical Community Engagement: ☑

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☑

populations at particular risk or vulnerability to climate change impacts

Elderly

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content